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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,549	08/01/2001	Rui Lin	884.488US1	9711

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EXAMINER	
NASH, LASHANYA RENEE	

ART UNIT	PAPER NUMBER
2153	

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/920,549	LIN ET AL.	
	Examiner	Art Unit	
	LaShanya R Nash	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to an Amendment filed August 30, 2005. Claims 1-30 are presented for further consideration.

Response to Arguments

Applicant's arguments, see Remarks *103 Rejection of the Claims*, with respect to the rejections of claims 1-30 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of newly applied references Yao ["Proxy-Based recovery for Applications on Wireless Hand-held Devices"-IEEE] and Yukie et al. (US Patent 6,956,833) as set forth below in the office action.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yao ["Proxy-Based recovery for Applications on Wireless Hand-held Devices"-

IEEE] in view of Yukie et al. (US Patent 6,956,833), hereinafter referred to as Yao and Yukie respectively.

In reference to claim 1, Yao discloses a system wherein a proxy server is employed to sustain a client's connection when a disconnection is experienced in a wireless environment, (*abstract; 1. Introduction*). Yao discloses:

- A mobile server, (Figure 1: Application Architecture, page 3) comprising:
- A master portion residing within a wireless communication device (i.e. cellular devices; Figure 1) to operate within a wireless communications network (i.e. wireless network; Figure 1) to communicate data wirelessly (*1.2 Three Tier Application Architecture,* pages 2-3); and
- A virtual server portion, (i.e. server) operating within a publicly-accessible internet network (i.e. high-speed network) and accessible to clients devices through the publicly-accessible internet to store the data (*1.2 Three Tier Application Architecture*); and to receive updates to information from the master portion through a support node (i.e. proxy server), the support node to provide interface between the wireless communications network and the publicly-accessible internet network (*1.3 Proxy-based Recovery*); and
- wherein the virtual server portion is to provide the server data and services on behalf of the master server portion over the publicly-accessible internet network to client devices requesting the server data and server services from the mobile server by routing packets from the requesting client devices to the virtual server

portion instead of the master server portion, (*3. Failure Recovery Protocol*, Pages 5-6).

However, the system as disclosed by Yao has an architecture comprising a wireless client and a wired server, as opposed to Applicant's claimed wireless server and client devices connected to the publicly-accessible internet. Nonetheless, these limitations were well known in the art at the time of invention as further evidenced by Yukie. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly modify the aforementioned system as disclosed by Yao.

In an analogous art, Yukie discloses a system for retrieving stored data through Internet or wireless connections, (abstract). Yukie discloses a wireless server (i.e. data server; Figure 1-item 16) in communication with one or more a base stations (i.e. communicates with base station via wireless link; Figure 1-items 14&20). Yukie further discloses that stored data from the server is accessed from a terminal through a network connection to the internet, (i.e. terminal and internet; Figure 1-items 26&22). One of ordinary skill in the art would have been motivated to accordingly modify the functionality of Yoa by integrating the architecture of Yukie, so as to compensate for low communication bandwidth, slow process and limited of hand-held devices employed as servers, thereby increasing system reliability (Yao; *abstract*).

In reference to claim 10, Yao discloses a system wherein a proxy server is employed to sustain a client's connection when a disconnection is experienced in a wireless environment, (abstract; *1. Introduction*). Yao discloses:

- A system (Figure 1: Application Architecture, page 3) that provides mobile server service comprising:
- A mobile server to service client requests, the mobile server comprising
- A virtual server portion (i.e. server; Figure 1) to operate in a publicly-accessible internet network (i.e. high-speed network; Figure 1) and a master portion within a wireless communication device (i.e. cellular devices; Figure 1) to operate in a wireless communication system (i.e. wireless network; Figure 1), (*1.2 Three Tier Application Architecture*); and
- A support node (i.e. proxy; Figure 1), to route client requests received through the publicly-accessible Internet network to the virtual server portion for servicing to convert data packets between a wireless packet radio format of the wireless communication system and an Internet network format of the publicly-accessible Internet network, wherein the support node is to map a public address for the mobile sever to the virtual server portion in response to a request from the mobile server to activate the server services; and wherein the virtual server portion is to provide the server data and services on behalf of the master server portion over the publicly-accessible internet network to client devices requesting the server data and server services from the mobile server, (*1.3 Proxy-based Recovery*, pages 3-4; *3. Failure Recovery Protocol*, pages 5-6).

However, the system as disclosed by Yao has an architecture comprising a wireless client and a wired server, as opposed to Applicant's claimed wireless server and client devices connected to the publicly-accessible internet. Nonetheless, these limitations were well known in the art at the time of invention as further evidenced by Yukie. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly modify the aforementioned system as disclosed by Yao.

In an analogous art, Yukie discloses a system for retrieving stored data through Internet or wireless connections, (abstract). Yukie discloses a wireless server (i.e. data server; Figure 1-item 16) in communication with one or more a base stations (i.e. communicates with base station via wireless link; Figure 1-items 14&20). Yukie further discloses that stored data from the server is accessed from a terminal through a network connection to the internet, (i.e. terminal and internet; Figure 1-items 26&22). One of ordinary skill in the art would have been motivated to accordingly modify the functionality of Yao by integrating the architecture of Yukie, so as to compensate for low communication bandwidth, slow process and limited of hand-held devices employed as servers, thereby increasing system reliability (Yao; *abstract*).

In reference to claim 14, Yao discloses a method wherein a proxy server is employed to sustain a client's connection when a disconnection is experienced in a wireless environment, (abstract; *1. Introduction*). Yao discloses:

- A method for providing mobile server services from a wireless communication device comprising, (abstract; *1. Introduction;* Figure 1: Application Architecture, page 3)

- Receiving at a support node (i.e. proxy; Figure 1), a request from the mobile device to activate server services and mapping, by the support node in response to the request, a first network address for the mobile server to a virtual server portion of the mobile server; receiving server data for the virtual server portion from a master server portion of the mobile server through a wireless network; servicing the client request by the virtual server portion on behalf of the master server portion providing at least some of the server data, (*1.2 Three Tier Application Architecture,* pages 2-3; *1.3 Proxy-based Recovery*, pages 3-4);
- Routing a client request received from a client through a publicly accessible internet network for server service to the virtual portion (i.e. server; Figure 1); and wherein the master portion resides in the wireless communication device (i.e. cellular device), and wherein the virtual portion operates within the publicly-accessible internet network (i.e. high-speed network; Figure 1) and communicates the server data with requesting client devices whether or not the master portion is accessible through the wireless network, wherein the support node provides an interface between the publicly-accessible internet network and the wireless network, (3. *Failure Recovery Protocol*, pages 5-6).

However, the method as disclosed by Yao is employed in an architecture comprising a wireless client and a wired server, as opposed to Applicant's claimed wireless server and client devices connected to the publicly-accessible internet. Nonetheless, these limitations were well known in the art at the time of invention as further evidenced by

Yukie. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly modify the aforementioned method as disclosed by Yao.

In an analogous art, Yukie discloses a method for retrieving stored data through Internet or wireless connections, (abstract). Yukie discloses a wireless server (i.e. data server; Figure 1-item 16) in communication with one or more a base stations (i.e. communicates with base station via wireless link; Figure 1-items 14&20). Yukie further discloses that stored data from the server is accessed from a terminal through a network connection to the internet, (i.e. terminal and internet; Figure 1-items 26&22). One of ordinary skill in the art would have been motivated to accordingly modify the functionality of Yao by integrating the architecture of Yukie, so as to compensate for low communication bandwidth, slow process and limited of hand-held devices employed as servers, thereby increasing reliability (Yao; *abstract*).

In reference to claim 28, Yao discloses a method wherein a proxy server is employed to sustain a client's connection when a disconnection is experienced in a wireless environment, (abstract; *1. Introduction*).

- A method of operating a server having a master portion residing in a wireless communication device (i.e. cellular device; Figure 1) and a virtual portion (i.e. server; Figure 1) operating in a publicly-accessible internet network, the method comprising (*1.2 Three Tier Application Architecture,* pages 2-3; Figure 1: Application Architecture, page 3):

- Registering with a support node (i.e. proxy; Figure 1) to provide server services, the support node providing an interface between a wireless network and the publicly-accessible internet network and supporting packet radio data communications for the wireless communication device over the wireless network (*1.3 Proxy-based Recovery*, pages 3-4);
- Transmitting server data to the support node over the wireless network for routing to the virtual portion over the publicly-accessible network the support node is to map a public address for the mobile sever to the virtual server portion in response to a request from the mobile server to activate the server services; virtual server receiving updates to server information from the master server; and wherein the virtual server portion is to provide the server data and services on behalf of the master server portion over the publicly-accessible internet network to client devices requesting the server data and server services from the mobile server; network (*1.3 Proxy-based Recovery*, pages 3-4); and
- Receiving client data at the support node over the wireless network wherein requests for server services are provided by the virtual server portion whether or not the master server portion is available, (*1.3 Proxy-based Recovery*, pages 3-4; 3. *Failure Recovery Protocol*, pages 5-6).

However, the method as disclosed by Yao is employed in an architecture comprising a wireless client and a wired server, as opposed to Applicant's claimed wireless server and client devices connected to the publicly-accessible internet. Nonetheless, these

limitations were well known in the art at the time of invention as further evidenced by Yukie. Therefore, it would have been obvious for one of ordinary skill in the art to accordingly modify the aforementioned method as disclosed by Yao.

In an analogous art, Yukie discloses a method for retrieving stored data through Internet or wireless connections, (abstract). Yukie discloses a wireless server (i.e. data server; Figure 1-item 16) in communication with one or more a base stations (i.e. communicates with base station via wireless link; Figure 1-items 14&20). Yukie further discloses that stored data from the server is accessed from a terminal through a network connection to the internet, (i.e. terminal and internet; Figure 1-items 26&22). One of ordinary skill in the art would have been motivated to accordingly modify the functionality of Yao by integrating the architecture of Yukie, so as to compensate for low communication bandwidth, slow process and limited of hand-held devices employed as servers, thereby increasing reliability (Yao; *abstract*).

Claims 2-5, 7, 13, 15, 18, 19, 20, 22, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yao and Yukie as applied to claims 1,10,14, and 28 above, and further in view of Inoue et al. (US Patent 6,874,017), hereinafter referred to as Inoue.

In reference to claim 2, the references fail to show at the support node registers the mobile server to provide the services in response to a request from the mobile server to activate the server services. However, these limitations would have been an obvious modification to the aforementioned system, as evidenced by Inoue.

In an analogous art, Inoue discloses a method employed for transmission of server data between a mobile computing device via a wireless communication network and an information server (e.g. virtual server) accessible via the Internet, (abstract; columns 2-5). Inoue discloses an equivalent configuration as applicant's claimed invention. Inoue further discloses at the support node registers the mobile server to provide the services in response to a request from the mobile server to activate the server services, (column 11). One would have been so motivated to implement the operation disclosed by Inoue into the configuration of the server as disclosed by Yao and Yukie, so as to provide continued access to data on mobile server through wired access when a quality wireless connection is unavailable (Dorenbosch paragraph [0003]; paragraph [0010]).

In reference to claim 3, Inoue shows the limitations: (columns 1-2; column 8).

In reference to claim 4, Inoue shows the limitations: (columns 7-9).

In reference to claim 5, Inoue shows the limitations: (e.g. web-page data; client data; and server data; base stations; columns 9-11; Figure 1-items 12); and Dorenbosch shows the limitations: (e.g. address; update data; paragraphs 9-10).

In reference to claim 7, Inoue shows the limitations: (columns 1-2).

In reference to claim 13, Inoue shows the limitations: (columns 9-11).

In reference to claim 15, Inoue shows the limitations: (columns 7-9).

In reference to claim 18, Inoue shows the limitations: (columns 9-11).

In reference to claim 19, Inoue shows the limitations: (columns 1-2).

In reference to claim 20, Inoue shows the limitations: (columns 7-8).

In reference to claim 22, Inoue shows the limitations: (columns 1-2).

In reference to claim 25, Inoue shows the limitations: (columns 7-9).

Claims 8,9,11,12,16,17,21,23,24,26,27,29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yao and Yukie as applied to claims 1,10,14, and 28 above, and further in view of Dorenbosch (US Patent Application Publication 2002/0114317), hereinafter referred to as Dorenbosch.

In reference to claim 6, the references fail to show updating the server data and the Web-page data of the virtual server portion through the support node using a network address of the virtual server portion, the update to the server data and the webpage data being buffered by the master server portion until the master server

[portion has access to the support node. However, these limitations would have been an obvious modification to the aforementioned system, as evidenced by Dorenbosch.

In an analogous art, Dorenbosch discloses an apparatus for switching an ongoing communication of information between a wireless connection and a wired connection (abstract). Dorenbosch updating the server data and the Web-page data of the virtual server portion through the support node using a network address of the virtual server portion, the update to the server data and the webpage data being buffered by the master server portion until the master server [portion has access to the support node (paragraphs [0009]-[0010]). One would have been so motivated to implement the operation disclosed by Dorenbosch into the configuration of the server as disclosed by Yao and Yukie, so as to provide continued access to data on mobile server through wired access when a quality wireless connection is unavailable (Dorenbosch paragraph [0003]; paragraph [0010]).

In reference to claim 8, Dorenbosch shows the limitations: (paragraph [0010]).

In reference to claim 9, Dorenbosch shows the limitations: (paragraphs [0007]-[0010]).

In reference to claim 11, Dorenbosch shows the limitations: (paragraph [0010]).

In reference to claim 12, Dorenbosch shows the limitations: (paragraph [0010]).

In reference to claim 16, Dorenbosch shows the limitations: (paragraph [0010]).

In reference to claim 17, Dorenbosch shows the limitations: (paragraph [0009]-[0010]).

In reference to claim 21, Dorenbosch shows the limitations: (paragraphs [0009]-[0010]).

In reference to claim 23, Dorenbosch shows the limitations: (paragraph [0010]).

In reference to claim 24, Dorenbosch shows the limitations: (paragraphs [0009]-[0010]).

In reference to claim 26, Dorenbosch shows the limitations: (paragraphs [0007]-[0010]).

In reference to claim 27, Dorenbosch shows the limitations: (paragraphs [0007]-[0010]).

In reference to claim 29, Dorenbosch shows the limitations: (paragraphs [0007]-[0010]).

In reference to claim 30, Dorenbosch shows the limitations: (paragraphs [0007]-[0010]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShanya R Nash whose telephone number is (571) 272-3957. The examiner can normally be reached on 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LaShanya Nash
Art Unit, 2153
October 30, 2005

Primary Examiner